

International Journal of Approximate Reasoning

AIM AND SCOPE

International Journal of Approximate Reasoning is dedicated to the dissemination of research results from the field of approximate reasoning and its applications, with emphasis on the design and implementation of intelligent systems for scientific and engineering applications. Approximate reasoning is computational modeling of any part of the process used by humans to reason about natural phenomena.

The journal welcomes archival research papers, surveys, short notes and communications, and book reviews. Current areas of interest include, but are not limited to, applications and/or theories pertaining to computer vision, engineering and expert systems, evolutionary computing, fuzzy logic and control, information retrieval and database design, machine learning, modeling for analysis and prediction, neurocomputing, pattern recognition, robotics, soft computing, and uncertainty treatment in reasoning tasks.

The original purpose of the journal is to provide a forum for the treatment of uncertainty in Artificial Intelligence, and in particular in automated reasoning tasks. This scope includes, but is not limited to, original papers on fuzzy sets, Dempster-Shafer theory, multi-valued logics, probability, random sets, rough sets, etc.

The scope of the journal has been extended to include new approaches and applications in the area of recognition technology and search. Hybrid soft computing systems – a synergistic consortium of fuzzy logic, neurocomputing, evolutionary computing, probabilistic computing and machine learning – play a key role in enhancing the capabilities of recognition systems. Similarly, Internet searches require flexible matching processes to provide useful results. As predicted by Professor Lotfi Zadeh, “in coming years, recognition technology is likely to play a pivotal role in the conception, design, construction and utilization of information/intelligent systems. After all, recognition is one of the most basic facets of human reasoning and human cognition”.

The journal is affiliated with the North American Fuzzy Information Processing Society (NAFIPS).

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